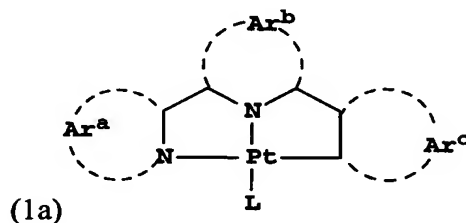


**WHAT IS CLAIMED IS:**

1. An electroluminescent device comprising a cathode, an anode, and, located there between, a light emitting layer (LEL) containing a light emitting material that contains an organometallic complex comprising Pt or Pd metal and a tridentate ( $N^{\wedge}N^{\wedge}C$ ) ligand, wherein the tridentate ( $N^{\wedge}N^{\wedge}C$ ) ligand represents a ligand that coordinates to the metal through a nitrogen donor bond, a second nitrogen donor bond, and a carbon-metal bond, in that order, wherein at least one of the nitrogen donors is part of an aromatic ring or an imine group, and wherein the Pt or Pd atom also forms a bond to an anionic ligand group L, wherein L represents alkyl, alkenyl, aryl, or a cyano carbon, or halogen, or RX, wherein X represents a substituent that forms a bond to the Pt or Pd atom and wherein X represents N, O, S, or Se, and R represents a substituent.
2. The device of Claim 1 wherein the metal is Pt.
3. The device of Claim 1 wherein the organometallic complex is part of the main chain of a polymer or is part of the side chain of a polymer.
4. The device of Claim 1 wherein both of the nitrogen donors are part of an aromatic ring.
5. The device of Claim 1 wherein the organometallic complex can be represented by Formula (1a):



wherein:

$\text{Ar}^a$ ,  $\text{Ar}^b$ , and  $\text{Ar}^c$  independently represent the atoms necessary to form a five or six-membered aromatic ring group; and  
L is an anionic ligand.

6. The device of claim 5, wherein  $\text{Ar}^a$ ,  $\text{Ar}^b$ , and  $\text{Ar}^c$  independently represent the atoms necessary to form a six-membered aromatic ring group.

7. The device of claim 5, wherein  $\text{Ar}^a$  and  $\text{Ar}^b$  independently represent the atoms necessary to form a pyridine ring group.

8. The device of claim 5, wherein  $\text{Ar}^c$  represents the atoms necessary to form a benzene ring group.

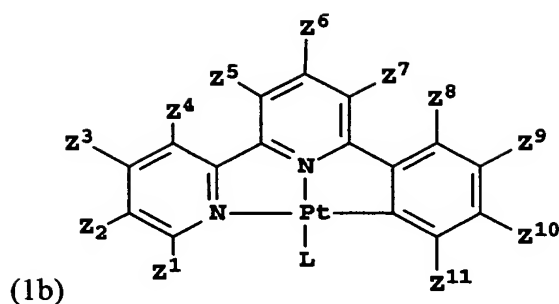
9. The device of claim 5, wherein L represents halogen.

10. The device of claim 5, wherein L represents fluoride.

11. The device of claim 5 wherein L represents an alkenyl group, an aryl group, an alkyl group, or a cyano group.

12. The device of claim 5, wherein L represents  $\text{RX}$ , wherein X represents a substituent that forms a bond to platinum and wherein X represents N, O, S, or Se, and R represents a substituent.

13. The device of Claim 1 wherein the organometallic complex is represented by Formula (1b):



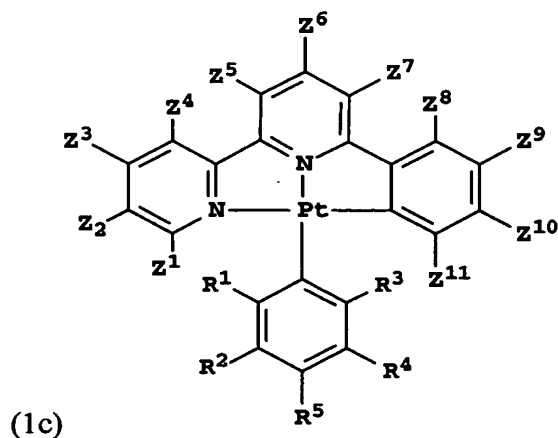
wherein,

$Z^1 - Z^{11}$  each represent hydrogen or independently selected substituent groups, provided that adjacent substituent groups can combine to form rings, and provided that  $Z^4$  and  $Z^5$ , and  $Z^7$  and  $Z^8$  can also combine to form rings; and

L represents an anionic ligand.

14. The device of claim 13, wherein L represents halogen, an alkenyl group, an aryl group, an alkyl group, or a cyano group, or L represents  $RX$ , wherein X represents a substituent that forms a bond to platinum where X represents N, O, S, or Se, and where R represents a substituent.

15. The device of Claim 1 wherein the organometallic complex can be represented by Formula (1c):



wherein,

$Z^1 - Z^{11}$  represent H or independently selected substituent groups, provided that adjacent substituent groups can combine to form rings, and provided that  $Z^4$  and  $Z^5$ , and  $Z^7$  and  $Z^8$  can also combine to form rings; and

$R^1 - R^5$  represent hydrogen or independently selected substituents, provided that adjacent substituent groups can combine to form ring groups.

16. The device of claim 15, wherein  $R^1$  and  $R^2$  of Formula (1c) combine to form a six-membered ring group.

17. The device of claim 15, wherein  $R^1$  of Formula (1c) is a 1-12 carbon alkyl group.

18. The device of claim 15, wherein  $R^1$  and  $R^2$ , of Formula (1c), combine to form a six-membered ring group and  $R^3$  and  $R^4$  also combine to form a six-membered ring group, or  $R^1$  and  $R^3$  independently represent a 1-12 carbon alkyl group.

19. The device of claim 1 wherein the organometallic complex contains an N-heterocyclic ligand.

20. The device of claim 19 wherein the organometallic complex contains a quinolinyl or an isoquinolinyl ligand group.

21. The device of claim 1 wherein the light-emitting material is a dopant compound and is disposed in a host material.

22. The device of claim 21 wherein the dopant compound is present in an amount of up to 15 wt% based on the host.

23. The device of claim 1 including a means for emitting white light.

24. The device of claim 23 including two or more compounds capable of emitting complimentary colors.

25. The device of claim 23 including a compound capable of emitting white light.

26. The device of claim 23 including a filtering means.

27. The device of claim 1 including a fluorescent emitting material.

28. The device of claim 1 wherein the organometallic complex is present in a compound containing 2 or more complexes.

29. A display comprising the electroluminescent device of claim 1.

30. An area lighting device comprising the electroluminescent device of claim 1.

31. A process for emitting light comprising applying a potential across the device of claim 1.